

Title (en)  
THREE-DIMENSIONAL PRINTING SYSTEM WITH LASER CALIBRATION SYSTEM

Title (de)  
DREIDIMENSIONALES DRUCKSYSTEM MIT LASERKALIBRIERSYSTEM

Title (fr)  
SYSTÈME D'IMPRESSION EN TROIS DIMENSIONS AVEC SYSTÈME D'ÉTALONNAGE LASER

Publication  
**EP 3814106 B1 20220330 (EN)**

Application  
**EP 19740252 A 20190627**

Priority  
• US 201862691096 P 20180628  
• US 2019039539 W 20190627

Abstract (en)  
[origin: WO2020006253A1] A three-dimensional printing system is configured to selectively solidify a build material at a build plane in a layer-by-layer manner. The three-dimensional printing system includes a laser module, a scan module, and a controller. The laser module is for emitting a light beam along a main optical path from the laser module to the build plane. The scan module includes a motorized mirror and a sensor. The motorized mirror includes a substrate having an optical coating that reflects at least 90% of incoming beam power such that the mirror transmits no more than 10% of the incoming beam power. The sensor is positioned to receive transmitted light from the mirror. The controller is configured to operate the laser module to emit the light beam along the main optical path, analyze a signal from the sensor, and based upon the analysis, to estimate a calibration error for the laser module.

IPC 8 full level  
**B29C 64/135** (2017.01); **B29C 64/264** (2017.01); **B29C 64/393** (2017.01); **B33Y 30/00** (2015.01)

CPC (source: EP US)  
**B29C 64/135** (2017.07 - EP); **B29C 64/264** (2017.07 - EP); **B29C 64/268** (2017.07 - US); **B29C 64/393** (2017.07 - EP US); **B33Y 30/00** (2014.12 - EP US); **B33Y 50/02** (2014.12 - US)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2020006253 A1 20200102**; EP 3814106 A1 20210505; EP 3814106 B1 20220330; JP 2021529111 A 20211028; JP 7084508 B2 20220614; US 11491730 B2 20221108; US 2020001538 A1 20200102

DOCDB simple family (application)  
**US 2019039539 W 20190627**; EP 19740252 A 20190627; JP 2020572399 A 20190627; US 201916455028 A 20190627